

IN THE CLAIMS:

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1. (Original) A method of managing a network directory cache, comprising the steps of:  
receiving and storing a plurality of user queries;  
creating a query template that generalizes the user queries; and  
retrieving directory entries answering the query template so that the directory entries can be stored in the cache.
  2. (Original) The invention of claim 1 wherein the directory entries are retrieved after estimating benefits of storing the directory entries in the cache.
  3. (Original) The invention of claim 1 wherein the query template is stored and modified as new user queries are received.
  4. (Original) The invention of claim 1 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.
  5. (Original) A method of managing a network directory cache comprising the steps of:  
maintaining a plurality of candidate templates that may be used to retrieve directory entries to store in the cache;  
receiving and storing a user query; and  
generating a plurality of new candidate templates that generalize the candidate templates with the user query.
  6. (Original) The invention of claim 5 wherein the new candidate templates are generated after estimating benefits of storing directory entries in the cache answering the new candidate templates.
  7. (Original) The invention of claim 5 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.

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8. (Original) A method of managing a network directory cache, comprising the steps of:

maintaining a plurality of candidate templates;  
estimating a benefit of caching directory results answering the candidate templates; and  
selecting a candidate template based on its benefit estimate and retrieving directory entries answering the candidate template so that the directory entries can be stored in the cache.

9. (Original) The invention of claim 8 wherein the directory entries are retrieved to replace old directory entries in the cache.

10. (Original) The invention of claim 8 wherein the directory entries are retrieved only if their estimated benefit is greater than an estimate of benefits of old directory entries in the cache.

11. (Currently Amended) The invention of claim 10 wherein old directory entries in the cache are replaced incrementally if the ~~the~~ estimated benefit is not greater than an estimate of benefits of old directory entries in the cache.

12. (Original) The invention of claim 8 wherein the network directory cache utilizes the Lightweight Directory Access Protocol.

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13. (New) A method of managing a network directory cache, comprising the steps of:

receiving and storing a plurality of user queries to form a stored plurality of user queries;  
creating one or more query templates, where each query template generalizes a chosen subset of stored plurality of user queries;

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submitting said one or more query templates as a queries to a directory database on a server; and

receiving entries of said directory database that are responsive to said queries and storing them in the cache thus forming a directory cache.

14. (New) The method of claim 13 where said step of creating one or more query templates comprises:

creating a first number of candidate query templates;  
evaluating a cost and benefit of each of the candidate query templates; and  
selecting a second number of query templates from among said candidate query templates based on the evaluated costs and benefits.

15. (New) The method of claim 14, further comprising the steps of:

receiving and storing a query, thereby forming a modified plurality of stored user queries;  
repeating said step of creating one or more query templates; and  
updating said directory cache.

16. (New) The method of claim 14 where said step of updating comprises the steps of:

retrieving entries from said directory database,  
adding the retrieved entries to said directory cache; and  
removing at least one entry from said directory cache.

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